

REMARKS

The Office Action mailed July 5, 2006 has been carefully reviewed and the foregoing Amendment has been made in consequence thereof.

Claims 1-16 are now pending in this application. Claims 1-12 stand rejected. Claims 13-16 are withdrawn from consideration as being directed to a non-elected invention. Claims 1 and 6 have been amended. No new matter has been added.

Applicant acknowledges the Restriction Requirement being made final.

The rejection of Claims 1-12 under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 5,439,019 to Quandt et al. (hereinafter referred to as "Quandt") is respectfully traversed.

Quandt describes a clothes washer (10) having a washtub (32), actuator control knobs (28a-28d) and a controller (36). Using the actuator control knobs (28a-28d), an operator inputs the desired water temperature for the wash and rinse operations to the controller (36). The controller (36) computes and stores averages for the cold water temperature (T_c), the warm water temperature (T_w) and the flow rate (FR) of water from a mixing valve (38) into washtub (32). The washtub (32) has a plurality of pressure sensors (56a-56e) disposed at various levels. Pressure sensor (56a) is positioned at the lowest level and provides an output indicating when water is filled to the 9.95 gallon level. The fill rate FR is calculated by determining how long it takes to fill to a particular pressure sensor (56a-e), and then dividing the gallons required to fill to that particular level by that measured time to fill to that level. It may be desirable to use pressure sensors (56a-e) as a cross correlation for the fill time, FT. For example, if the preselected level through control knob (28b) is for a medium wash load level V that corresponds to 15.65 gallons, and the level sensor (56c) also corresponds to 15.65 gallons, then theoretically the pressure sensor (56c) should provide an output signal at the completion of the fill time FT. Controller (36) also uses timer (58) and pressure sensors (56a-56e) practically implemented as a multiposition pressure switch to determine a historical average of the flow rate FR into the washtub (32).

Claim 1 recites a temperature control for a washing machine, the washing machine including a tub, a hot water valve, and a cold water valve, said temperature control comprising “a first pressure sensor positioned to sense a full fill level in said tub and configured to generate a full fill signal when the tub is full; a second pressure sensor positioned to sense an intermediate fill level, the intermediate fill level less than the full fill level and corresponding to an adjustment level in said tub, said second pressure sensor configured to generate an intermediate fill signal when the intermediate fill level is reached; and a controller operatively coupled to said first and second pressure sensors, and said hot and cold water valves, said controller configured to control said valves based on the fill signals from said pressure sensors to control a wash water temperature.”

Quandt does not describe or suggest a temperature control for a washing machine, as recited in Claim 1. More specifically, Quandt does not describe or suggest a temperature control having a second pressure sensor positioned to sense an intermediate fill level, where the intermediate fill level is less than a full fill level and corresponds to an adjustment level. Rather, in contrast to the present invention, Quandt describes a washtub having a plurality of sensors used to compute an average fill rate and to using the plurality of sensors as a cross correlation for the fill time. Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Quandt.

Claims 2-5 depend from independent Claim 1. When the recitations of Claims 2-5 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-5 likewise are patentable over Quandt.

Claim 6 recites a washing machine comprising “a tub; a cold water valve for controlling flow of cold water to said tub; a hot water valve for controlling flow of hot water to said tub; a first pressure sensor positioned to sense a full fill level in said tub and configured to generate a full fill signal when the tub is full; a second pressure sensor positioned to sense an intermediate fill level, the intermediate fill level less than full and corresponding to an adjustment level in said tub, said second pressure sensor configured to generate an intermediate fill signal when the intermediate fill level is reached; and a controller operatively coupled to said first and second pressure sensors and said hot and cold

water valves, said controller operable to control said valves based on the fill signals from said pressure sensors to control a wash water temperature.”

Quandt does not describe or suggest a washing machine, as recited in Claim 6. More specifically, Quandt does not describe or suggest a washing machine having a second pressure sensor positioned to sense an intermediate fill level, where the intermediate fill level is less than full and corresponds to an adjustment level. Rather, in contrast to the present invention, Quandt describes a wash tub having a plurality of sensors used to compute an average fill rate and using the plurality of sensors as a cross correlation for the fill time. Accordingly, for at least the reasons set forth above, Claim 6 is submitted to be patentable over Quandt.

Claims 7-12 depend from independent Claim 6. When the recitations of Claims 7-12 are considered in combination with the recitations of Claim 6, Applicants submit that dependent Claims 7-12 likewise are patentable over Quandt.

The rejection of Claims 1-12 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,873,518 to Richmond et al. (hereinafter referred to as “Richmond”) is respectfully traversed.

Richmond describes an appliance water valve assembly which has a temperature and pressure sensing device integrated therein. Richmond describes an appliance (10) having a water valve assembly (12) in fluid communication with a pressure sensor line (14). Air pressure in the pressure sense line (14) is indicative of the water level within the washbasin (16). The water valve assembly (12) includes a sensing device (72), a pressure inlet (74) and a thermoconductor (76). Air pressure in the pressure sense line (14) increases as the washbasin (16) of the appliance (10) fills with water. Therefore, the inner pressure within the pressure channel (74a) will likewise increase as the washbasin (16) fills with water. Such air pressure, referred to as “water level pressure,” may be monitored in order to determine when it is desirable to add additional water to the washbasin (16). The sensing device (72) is provided to sense or otherwise detect 1) the temperature within the mixing chamber (70), and 2) the water level pressure within the pressure channel (74a). The sensing device (72)

includes a temperature sensing surface (72a) and a pressure sensing surface (72b) in fluid communication with the pressure channel (74a) of the pressure inlet (74). Notably, Richmond does not describe an appliance having a first pressure sensor and a second pressure sensor.

Claim 1 is recited above.

Richmond does not describe or suggest a temperature control, as recited in Claim 1. More specifically, Richmond does not describe or suggest a temperature control for a washing machine having a first pressure sensor and a second pressure sensor positioned to sense an intermediate fill level, where the intermediate fill level is less than a full fill level and corresponds to an adjustment level. Rather, in contrast to the present invention, Richmond describes an appliance having a sensing device that detects the temperature of water and the water level pressure. Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Richmond.

Claims 2-5 depend from independent Claim 1. When the recitations of Claims 2-5 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-5 likewise are patentable over Richmond.

Claim 6 is recited above.

Richmond does not describe or suggest a washing machine, as recited in Claim 6. More specifically, Richmond does not describe or suggest a washing machine having a first pressure sensor and a second pressure sensor positioned to sense an intermediate fill level, where the intermediate fill level is less than a full fill level and corresponds to an adjustment level. Rather, in contrast to the present invention, Richmond describes an appliance having a sensing device that detects the temperature of water and the water level pressure. Accordingly, for at least the reasons set forth above, Claim 6 is submitted to be patentable over Richmond.

Express Mail No.: EV 829957231 US



PATENT
9D-HL-20170

Claims 7-12 depend from independent Claim 6. When the recitations of Claims 7-12 are considered in combination with the recitations of Claim 6, Applicants submit that dependent Claims 7-12 likewise are patentable over Richmond.

For the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1-12 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,

Eric T. Krischke

Eric T. Krischke

Registration No. 42,769

ARMSTRONG TEASDALE LLP

One Metropolitan Square, Suite 2600

St. Louis, Missouri 63102-2740

(314) 621-5070